

WHAT IS CLAIMED IS:

1. A polymeric particle having a diameter of about 500 microns or less, wherein the particle has a first density of pores in an interior region and a second density of pores at a surface region, the first density being different from the second density.

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2. The polymeric particle of claim 1, wherein the first density is greater than the second density.

10 3. The polymeric particle of claim 1, wherein the particle has a first average pore size in the interior region and a second average pore size at the surface region, the first average pore size being different from the second average pore size.

15 4. The polymeric particle of claim 3, wherein the first average pore size is greater than the second average pore size.

5. The polymeric particle of claim 1, wherein the particle has a diameter of about 10 microns or more.

20 6. The polymeric particle of claim 1, wherein the particle has a diameter of about 100 microns or more.

7. The polymeric particle of claim 6, wherein the particle has a diameter of about 300 microns or less.

25 8. The polymeric particle of claim 1, wherein the particle has a diameter of about 300 microns or more.

30 9. The polymeric particle of claim 1, wherein the particle comprises at least one polymer selected from the group consisting of polyvinyl alcohols, polyacrylic acids, polymethacrylic acids, poly vinyl sulfonates, carboxymethyl celluloses, hydroxyethyl celluloses, substituted celluloses, polyacrylamides, polyethylene glycols, polyamides,

polyureas, polyurethanes, polyesters, polyethers, polystyrenes, polysaccharides, polylactic acids, polyethylenes, polymethylmethacrylates, polycaprolactones, polyglycolic acids, and poly(lactic-co-glycolic) acids.

5 10. The polymeric particle of claim 1, wherein the particle comprises a polyvinyl alcohol.

11. The polymeric particle of claim 1, wherein the particle is at least partially coated with a substantially bioabsorbable material.

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12. The polymeric particle of claim 1, wherein the particle has a density of from about 1.1 grams per cubic centimeter to about 1.4 grams per cubic centimeter.

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13. The polymeric particle of claim 1, wherein the particle has a sphericity of about 0.9 or more.

14. The polymeric particle of claim 1, wherein, after compression to about 50 percent, the particle has a sphericity of about 0.9 or more.

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15. The polymeric particle of claim 1, wherein the particle comprises about 2.5 weight percent or less polysaccharide.

16. The polymeric particle of claim 15, wherein the polysaccharide comprises alginate.

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17. The polymeric particle of claim 16, wherein the alginate has a guluronic acid content of about 60 percent or greater.

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18. The polymeric particle of claim 1, wherein the particle is substantially insoluble in DMSO.

19. The polymeric particle of claim 1, wherein the particle is substantially free of animal-derived compounds.

20. A polymeric particle having a diameter of about 500 microns or less, wherein
5 the particle has a first average pore size in an interior region and a second average pore size at a surface region, the first average pore size being different from the second average pore size.

21. The polymeric particle of claim 20, wherein the first average pore size is
10 greater than the second average pore size.

22. A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of about 500 microns or less, wherein at least some of the particles having a diameter of about
15 500 microns or less have a first density of pores in an interior region and a second density of pores at a surface region, the first density being different from the second density; and
a carrier fluid, the plurality of particles being in the carrier fluid.

23. The composition of claim 22, wherein the carrier fluid comprises a saline
20 solution.

24. The composition of claim 22, wherein the carrier fluid comprises a contrast agent.

25. The composition of claim 22, wherein the plurality of particles has a mean diameter of about 500 microns or less.

26. The composition of claim 22, wherein the plurality of particles has a mean diameter of about 10 microns or more.

27. The composition of claim 22, wherein the plurality of particles has a mean diameter of about 100 microns or more.

5 28. The composition of claim 27, wherein the plurality of particles has a mean diameter of about 300 microns or less.

29. The composition of claim 22, wherein the plurality of particle has a mean diameter of about 300 microns or more.

10 30. A composition, comprising:

a plurality of particles, at least some of the plurality of particles having a diameter of about 500 microns or less, wherein at least some of the particles having a diameter of about 500 microns or less have a first average pore size in an interior region and a second average pore size at a surface region, the first average pore size being different from the second average pore size; and

a carrier fluid, the plurality of particles being in the carrier fluid.

31. A method, comprising:

forming drops containing a base polymer and a gelling precursor; and

20 contacting the drops with a gelling agent to form particles containing the base polymer and the gelling precursor, the gelling agent being contained in a vessel, and the method further including at least one member selected from the group consisting of bubbling a gas through the gelling agent, including a surfactant in the mixture containing the gelling agent, disposing a mist containing the gelling agent between a source of the drops and the

25 vessel, and stirring the gelling agent.